FIG. I

FIG. 2

# Tornado Large Particle Reduction (hot water)
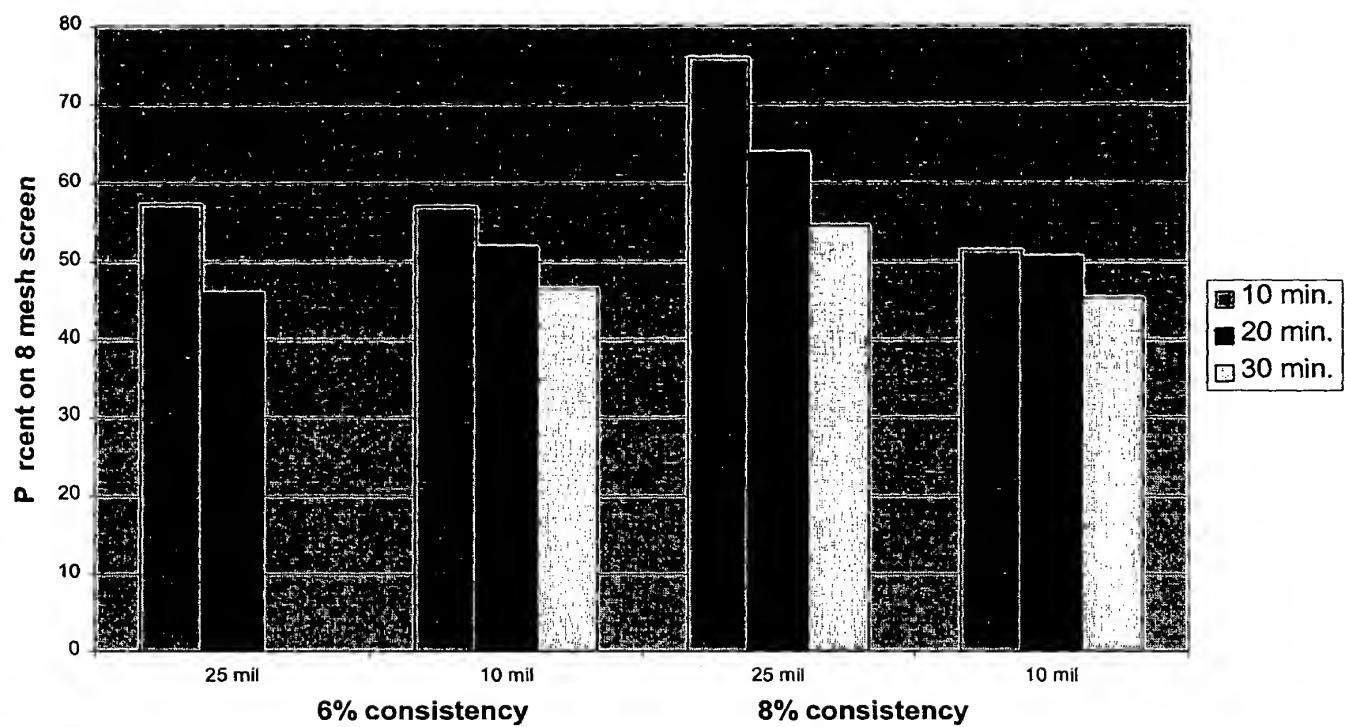
FIG. 3

Claflin Effect on 10 mil. Tornado Stock of Different Consistency
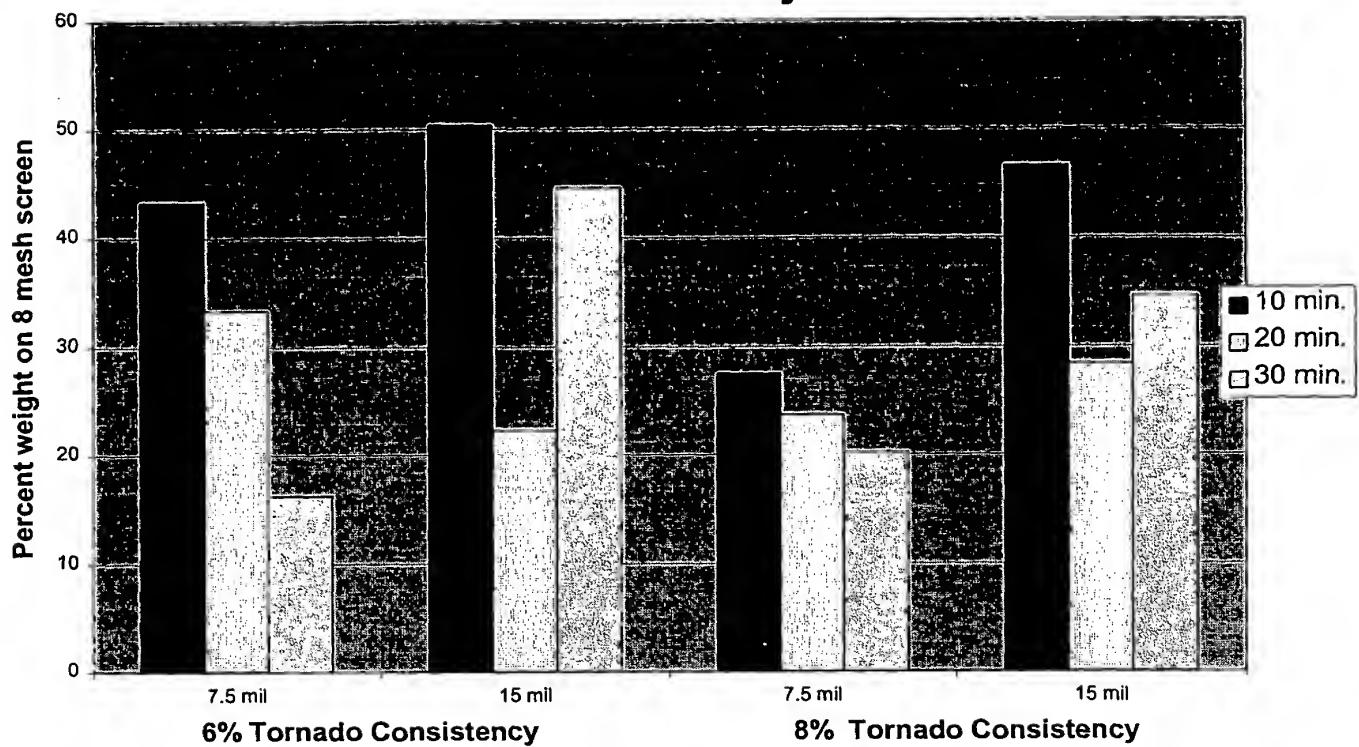

FIG. 4

Claflin Effect on 25 mil Tornad Stock
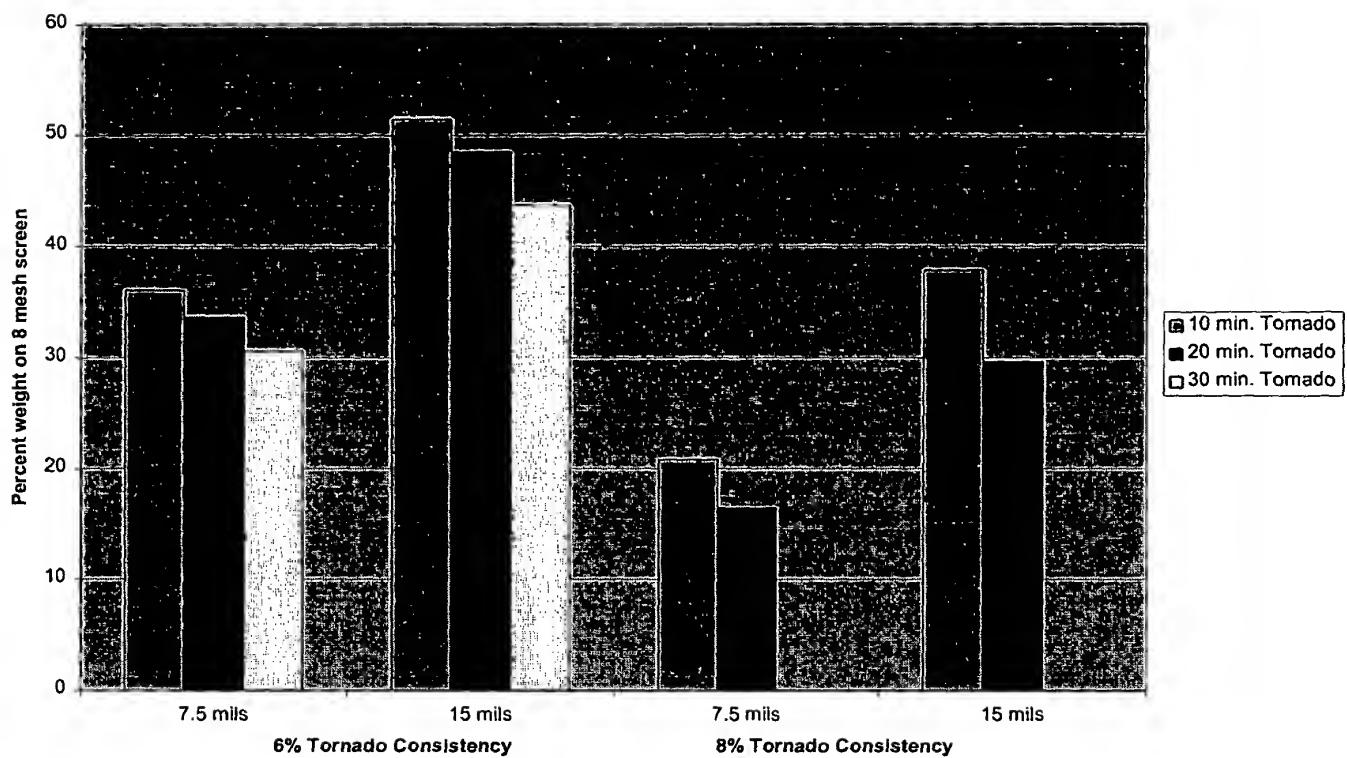
FIG. 5

Tornado CSF change with time and clearance


Legend:
- 6% at 25 mils
- 6% at 10 mils
- 8% at 25 mils
- 8% at 10 mils

Y-axis: Canadian std. freeness (640, 660, 680, 700, 720, 740, 760, 780)

X-axis: Time of Tornado Recirculation (10 min, 20 min, 30 min)
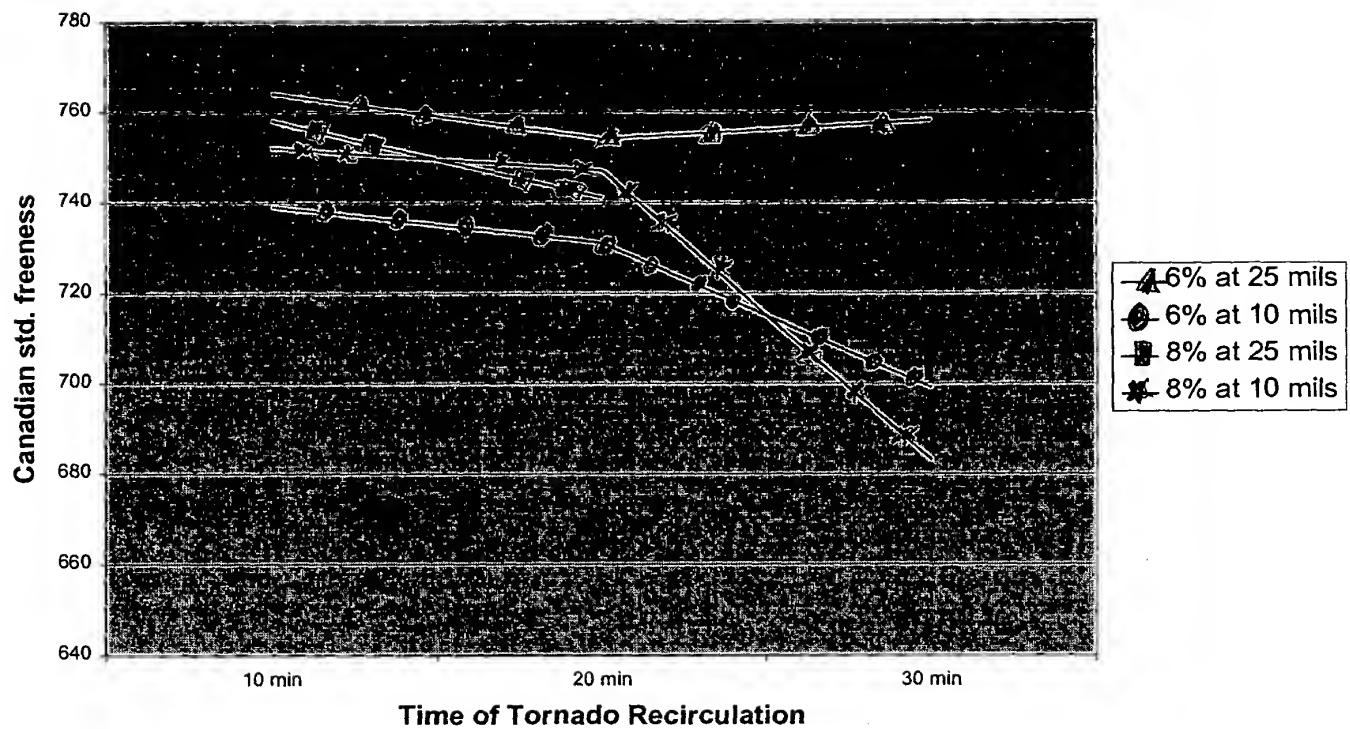
FIG. 6

Tornado effect on CSF (6% Consistency)

Legend:
- 25 mils rotor/stator clearance
- 10 mils rotor/stator clearance

X-axis: Recirculation time, minutes (10 min, 20 min, 30 min)
Y-axis: Canadian Std. freeness (660, 680, 700, 720, 740, 760, 780)

FIG. 7

Fines Dev lopment , 6% Consistency
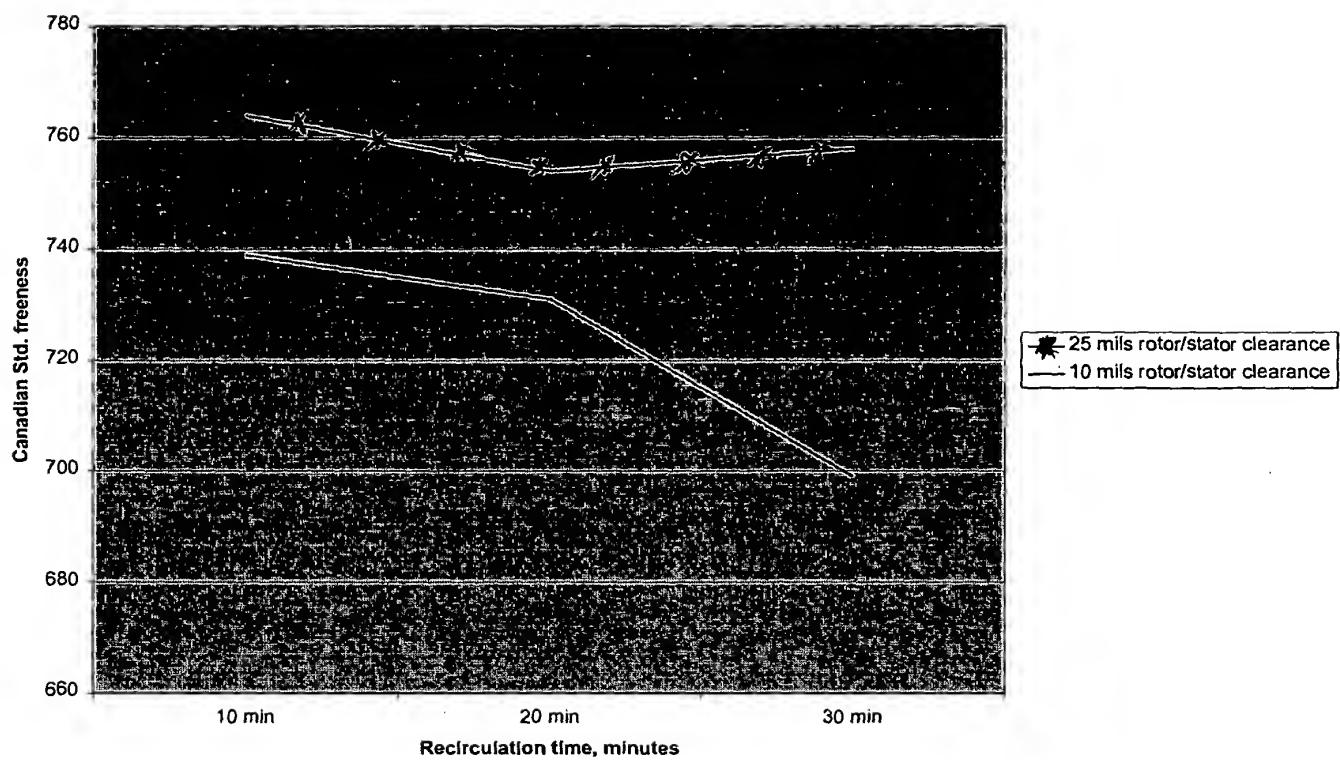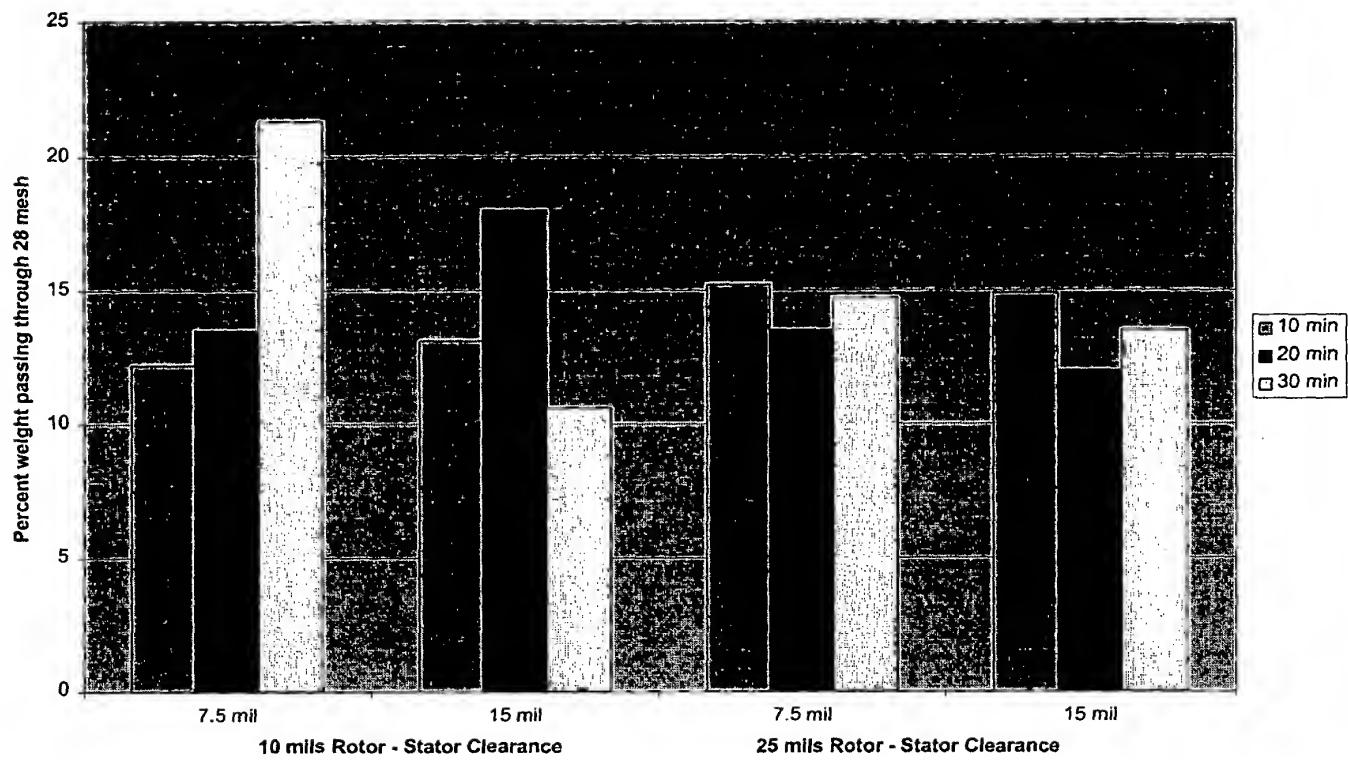
FIG. 8

Fines Development, Tornado at 8% Consistency

FIG. 9

220

210

1mm

FIG. 10

210

220

1mm
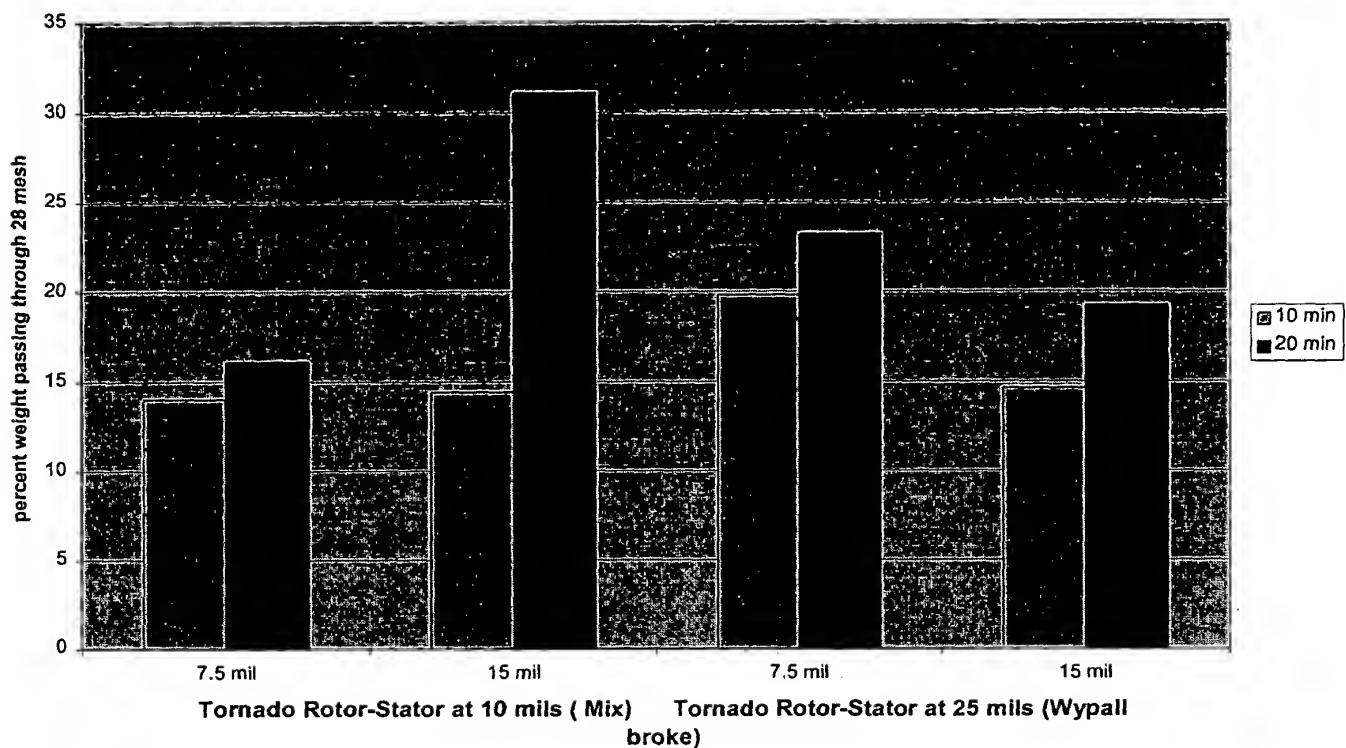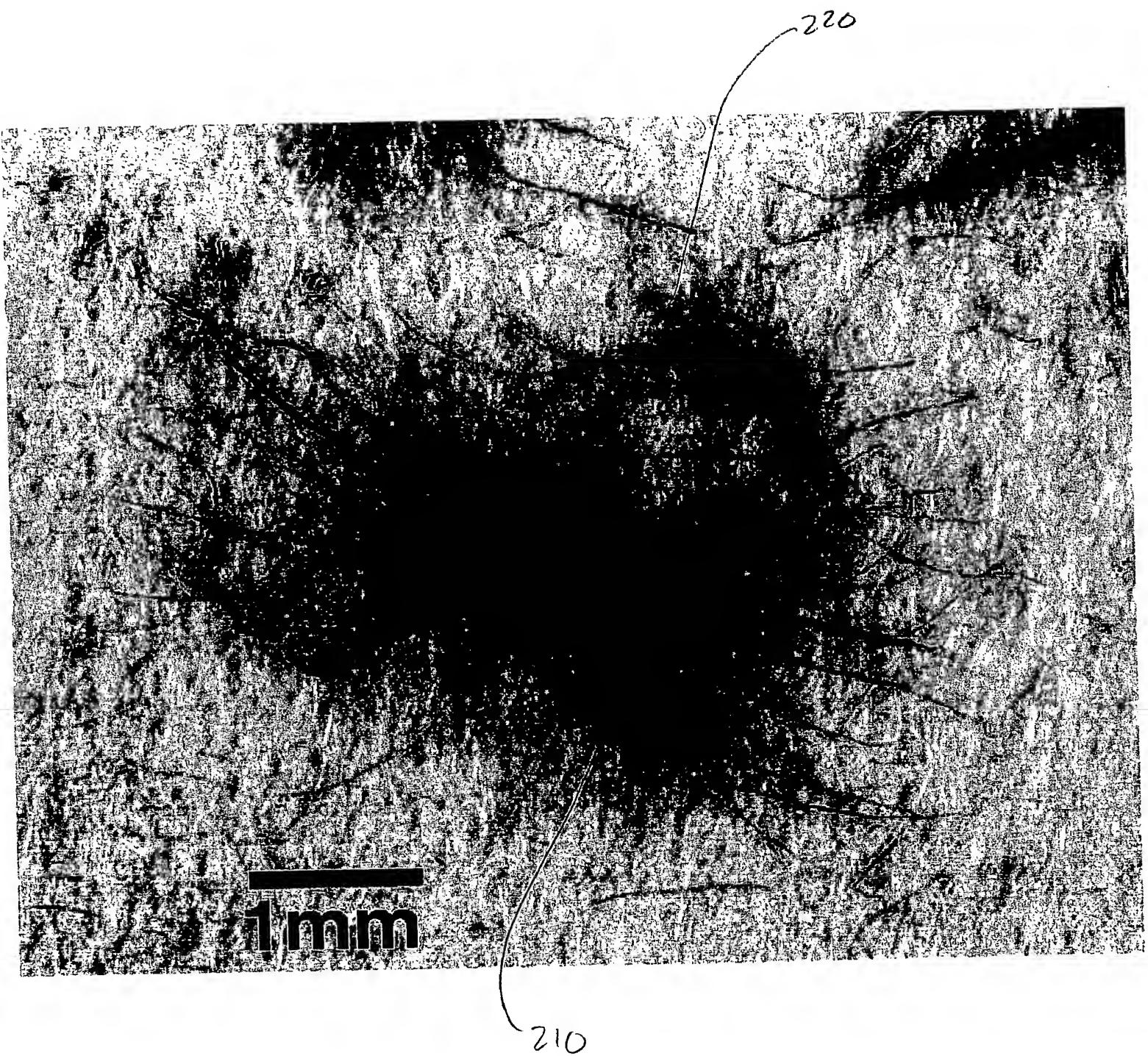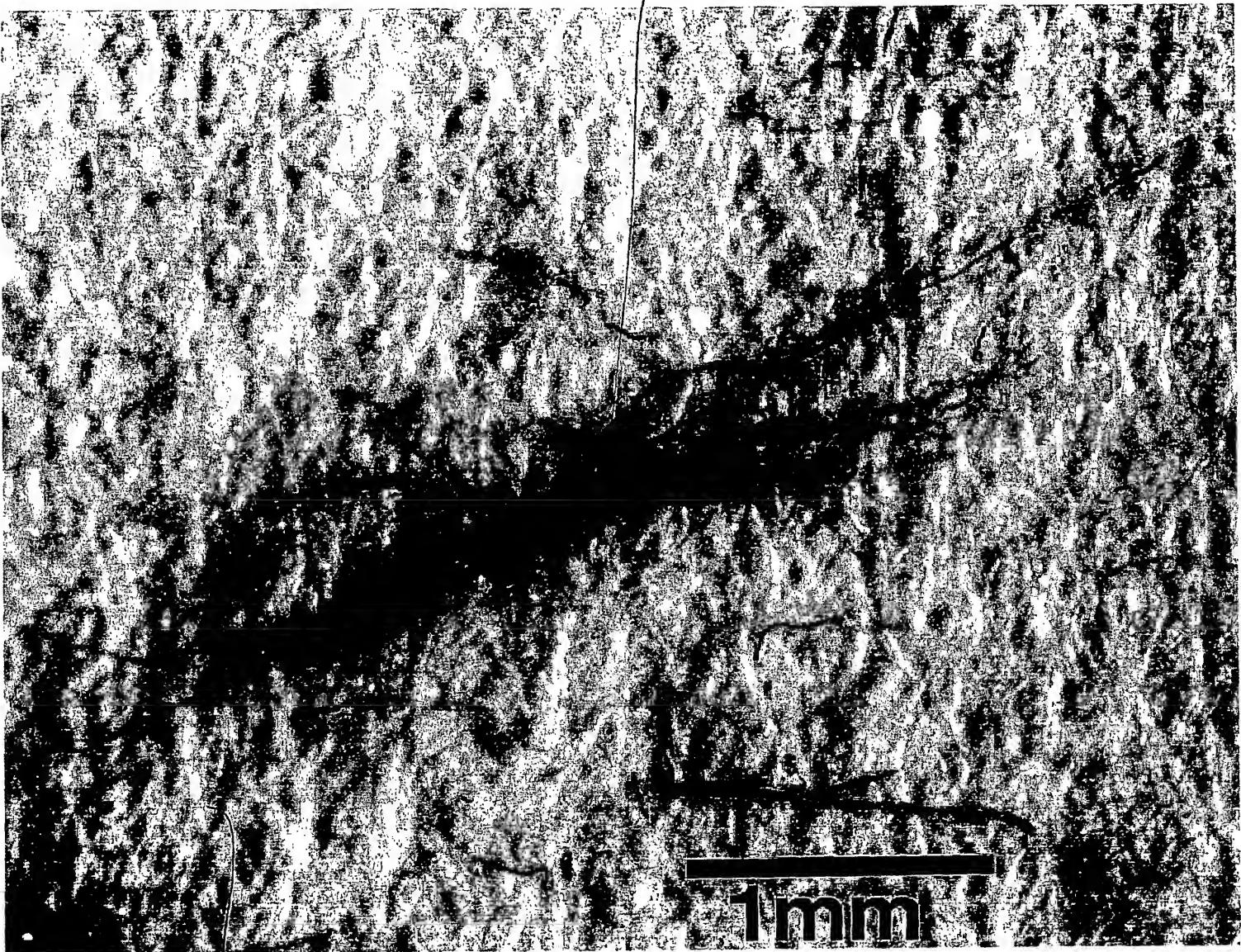
FIG.11

BAUER - MCNETT PARTICLE DISTRIBUTION tORNADO PULPER

Legend:
- wypall-40
- econom-40
- mix-30
- control

X-axis: SCREEN SIZE (10 mesh, 14 mesh, 20 mesh, 28 mesh, fines)

Y-axis: PERCENT RETAINED (0, 10, 20, 30, 40, 50, 60, 70, 80)
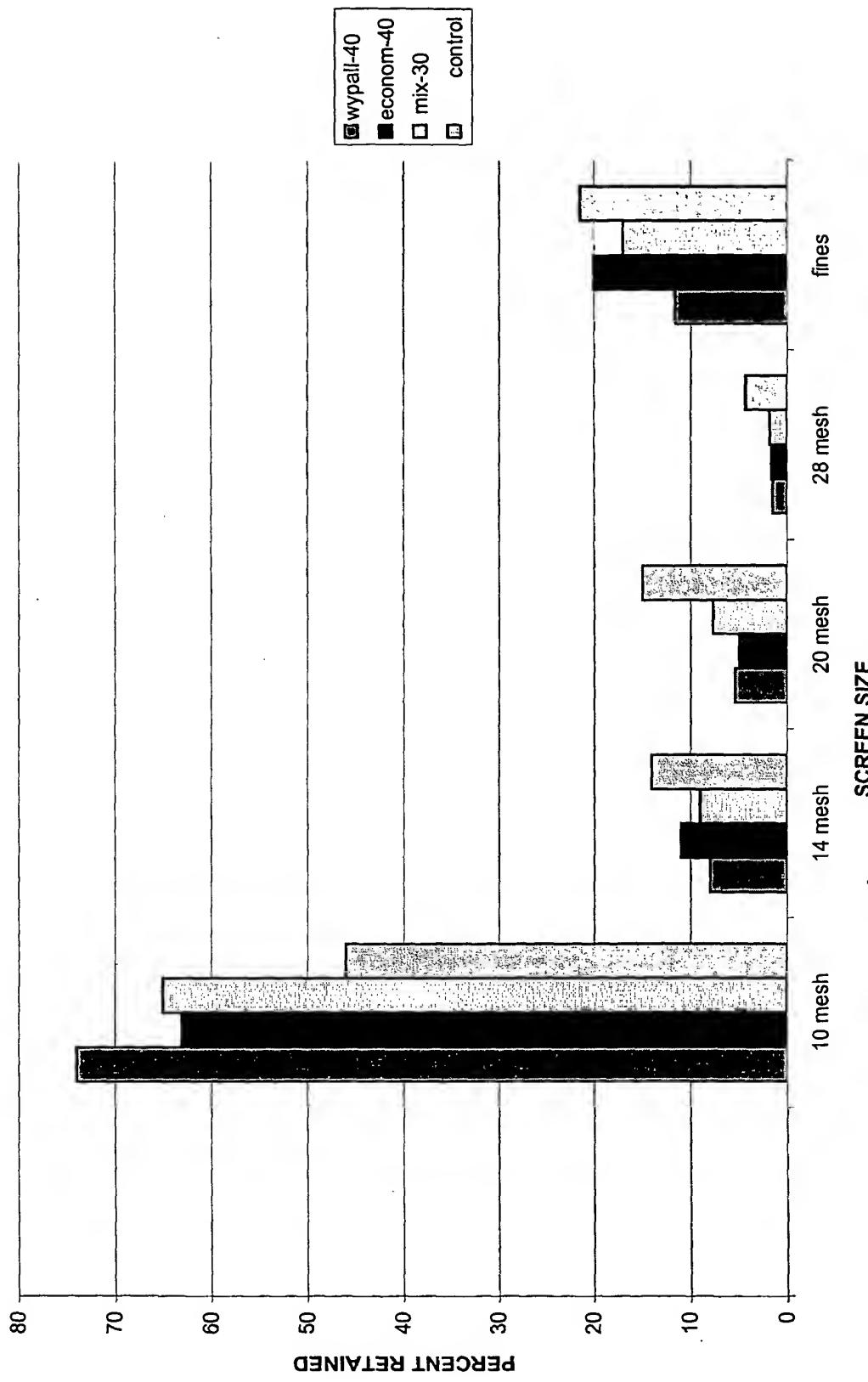
FIG. 12

Bauer - McNett Classifications of Tornado/Claflin

Legend:
- 10 mesh
- 14 mesh
- 20 mesh
- 28 mesh
- fines

X-axis categories: wypall-40, econom-40, mix-30, control, Mix60+Def, Wyp15+Cl, Eco15+Cl, Mix15+Cla

Y-axis: Percent Weight retained (0, 10, 20, 30, 40, 50, 60, 70, 80)
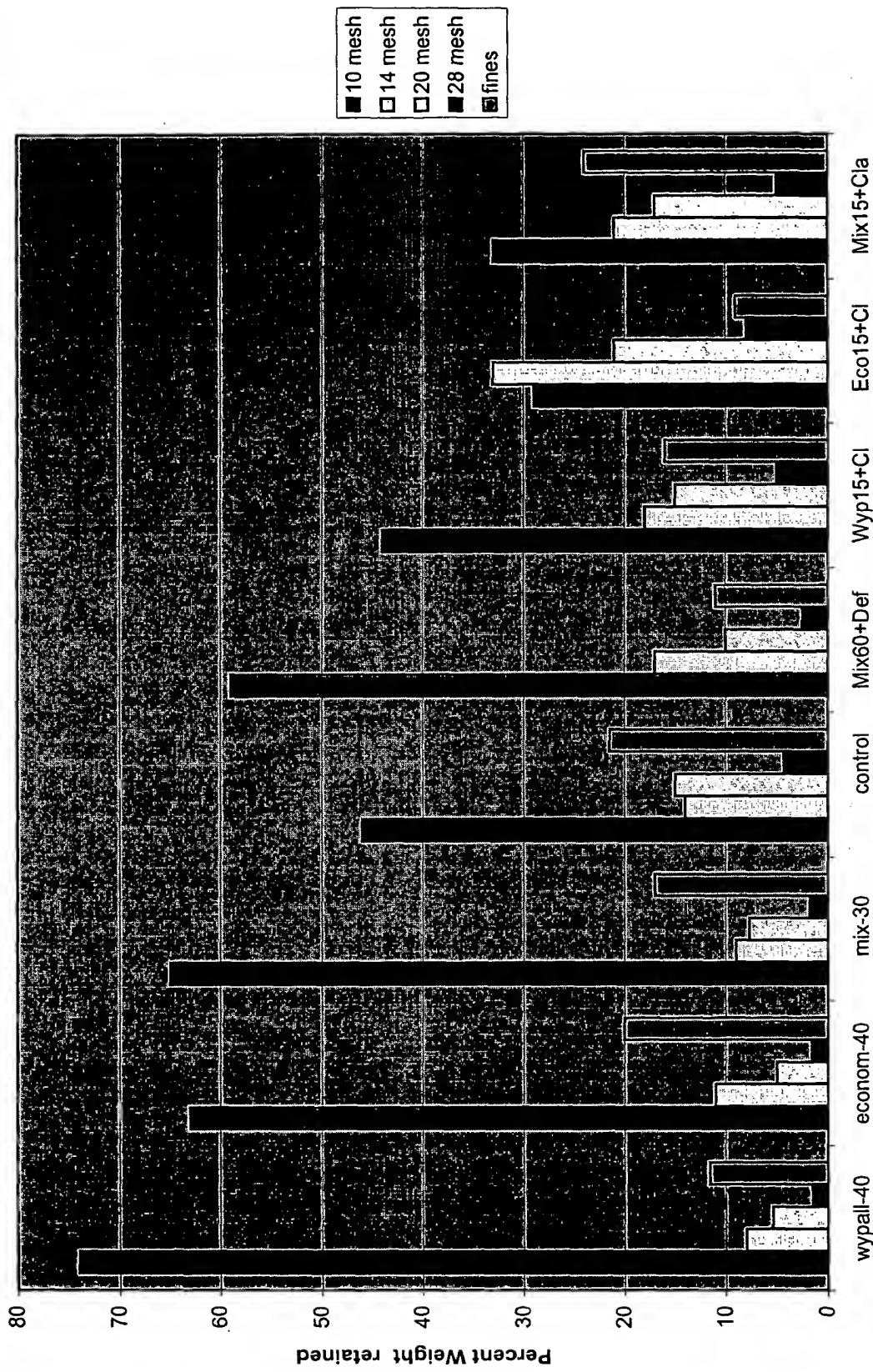
FIG.13

Tornado Pulper -   **Bauer NcNett Particle size classification**

Legend:
- ■ 10 mesh
- □ 14 mesh
- □ fines

Y-axis: Percent of total weight (0, 10, 20, 30, 40, 50, 60, 70, 80)

X-axis: Sample - minutes (wypall-40, econom-40, mix-30, control)
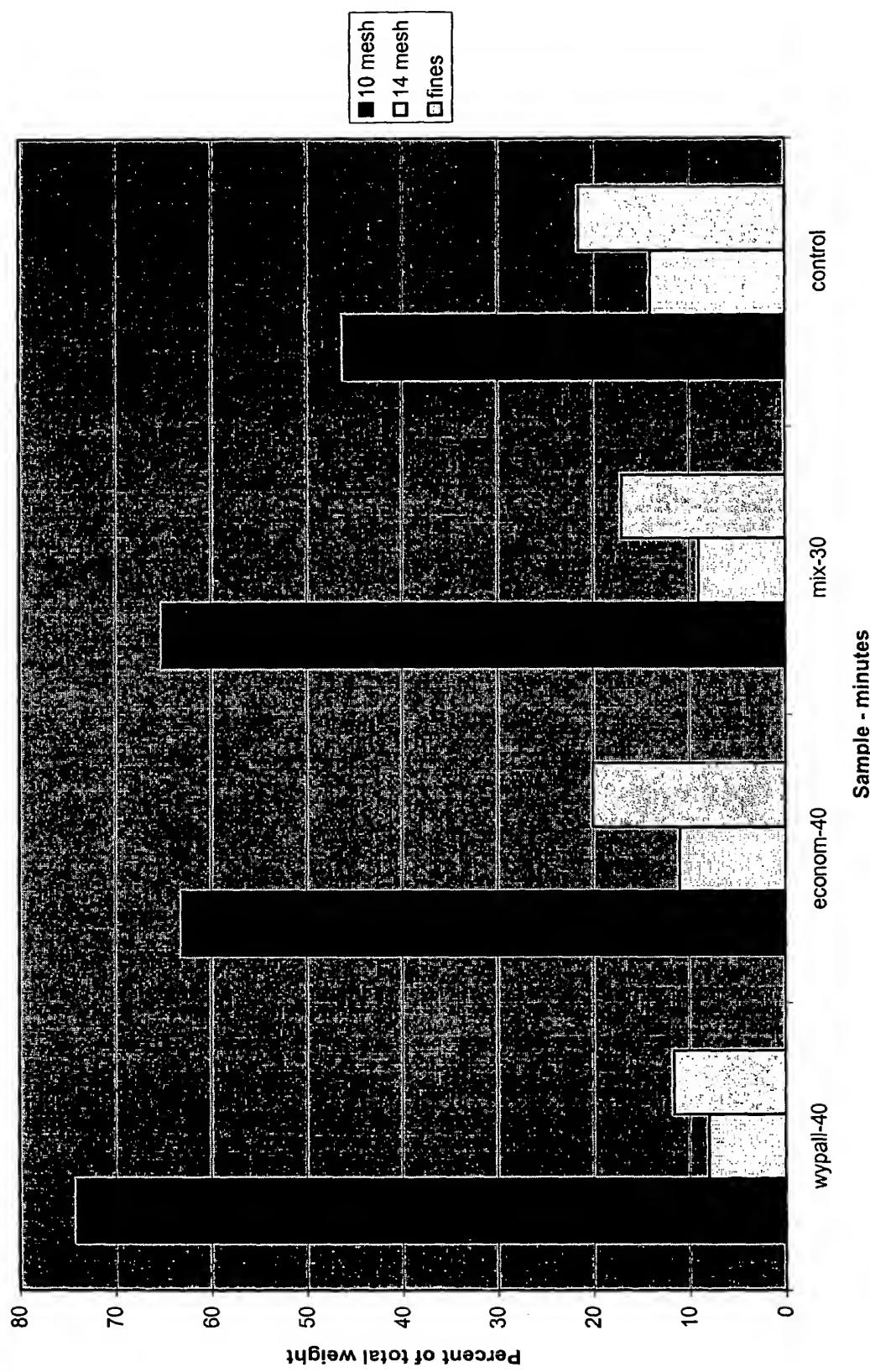
FIG. 14

Tornado Plus (Deflakers v.s. Claflin Refiner)

Legend:
- 10 mesh
- 14 mesh
- fines

Y-axis: Percent of total weight (Bauer McNett)
X-axis: Samples

Samples: control, Mix60+Def, Wyp15+Cl, Eco15+Cl, Mix15+Cla
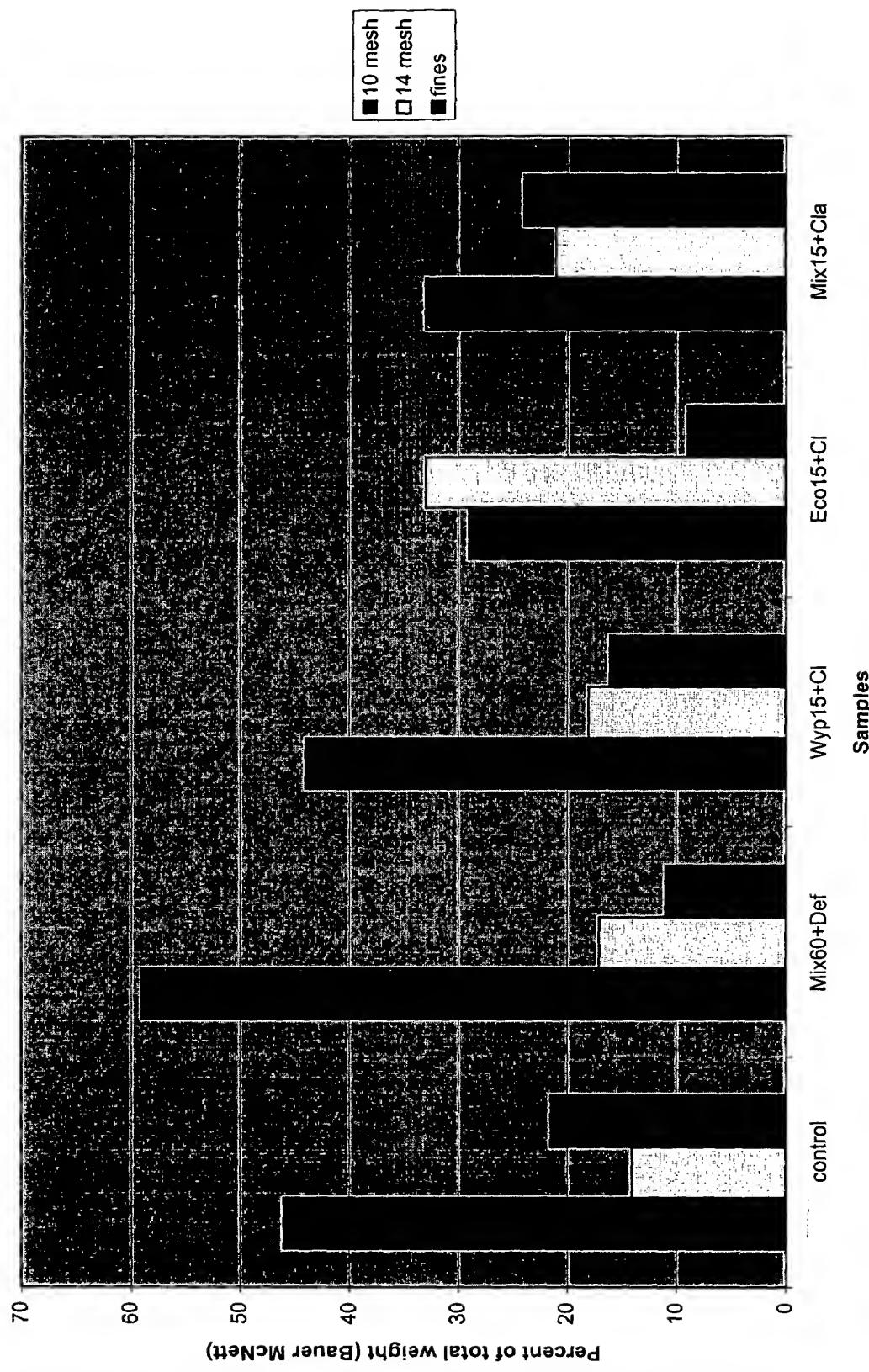
FIG. 15

Canadian Std. Freeness - Tornado pulper

Legend:
- Wypall
- Economizer
- Wy/Ec/Viva mix

x-axis: time, minutes
y-axis: CSF

FIG. 16